

Work Order ID 127147

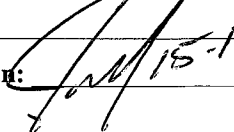
December-09-14 11:06:22 AM

127147

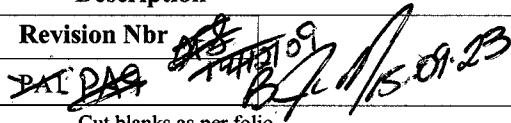
^{2/1}
~~PRELIMINARY ISSUE~~

Page 1

Item ID: D5155-9 Accept *N900040100* Setup Start *NS1*
 Revision ID: PRELIM  Stop *NS2*
 Item Name: Co-Pilot Collective Head (205)
 Start Date: 10/12/2014 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 23/12/2014 Req'd Qty: 1.00 *1* Customer:
 Reference:

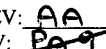
Approvals: Process Plan:  Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr								
D5155									

100	Cut blanks as per folio	0.00				1	0		DAS 08 9-89
100									
Bandsaw	Memo	0.00							
Jeaspa Bandsaw	CUT BLANK AT 4.900"								

Handwritten: B.A. 14/12/09

110		0.00				1	0		DAS 08 9-89
110									
HAAS 5AXIS	Memo	0.00							
HAAS CNC vertical machine #5	MACHINE AS PER DWG & FOLIO FB349/ D5155-9 FOLIO REV: AA DWG REV:  B								
	DO NOT BUFF OR POLISH PART								

Handwritten: B.A. 14/12/13
Handwritten: B.A. 15/09/22

DEBURR

Work Order ID 127147

127147

Page 2

December-09-14 11:06:22 AM

Item ID: D5155-9 Accept *N900040100* Setup Start *NS1*
 Revision ID: PRELIM Stop *NS2*
 Item Name: Co-Pilot Collective Head (205)
 Start Date: 10/12/2014 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 23/12/2014 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120	QC2- Inspect parts off machine FAI/FAIB	0.00				1	0		DAS 08 9-89
120									
QC	Memo	0.00							
Quality Control									

130	QC8- Inspect parts - second check	0.00				1	0		DAS 44 9-89
130									
QC	Memo	0.00							
Quality Control									

140	QC5- Inspect part completeness to step on W/O	0.00							
140									
QC	Memo	0.00							
Quality Control									



POSITIVE RECALL

EFFECTIVE _____ AUTH _____
 RELEASED _____ DATE _____

C2 OCT 14 2015 1

Outsource
 131 Issue P/O 30121
 132 Receive & Inspect
 133 QC3 Inspect Part Finish.

OCT 23 2015
 DAS
 38
 9-89

Work Order ID 127147***127147***

Page 3

December-09-14 11:06:22 AM

Item ID: D5155-9 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: PRELIM Stop ***NS2***
Item Name: Co-Pilot Collective Head (205)
Start Date: 10/12/2014 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 23/12/2014 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: <u>ST 154</u>	0.00				<u>1</u>			
160							<u>27</u>		
Packaging	Memo	0.00					<u>9-89</u>		
Packaging									
									OCT 26 2015
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							<u>MCS</u> OCT 27 2015
Quality Control									

POSITIVE RECALL

EFFECTIVE 14-12-08 AUTH [Signature]

RELEASED _____ DATE _____

ST 20141209

Picklist Print

December-09-14 11:06:21 AM

Page 1

Work Order ID: 127147

127147

Parent Item: D5155-9

D5155-9

Parent Item Name: Co-Pilot Collective Head (205)

Start Date: 10/12/2014

Required Date: 23/12/2014

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV.A NEW ISSUE JFS 14/12/09 VERIFIED BY: JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6B2.500X03.50
0

Purchased

No

100

f

17.4393

0.409

1

M6061T6B2 500X03 500

**

B.A 14/12/09

6061-T6 Bar 2.50 x 3.50

Location

MAT004

→ m126724
m129530

Loc Qty

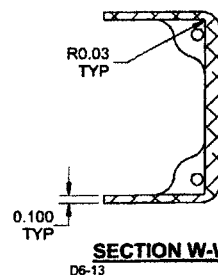
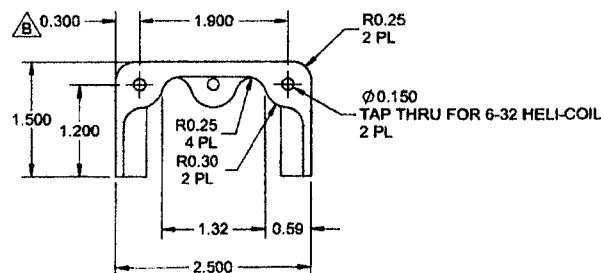
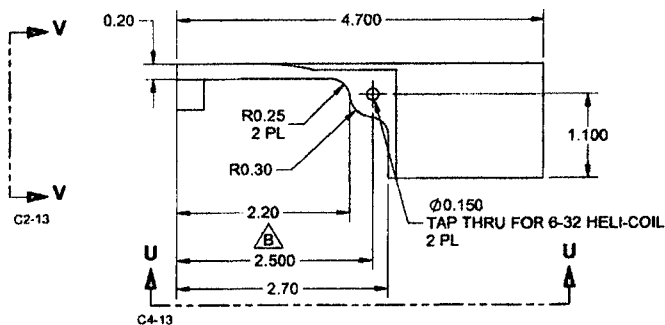
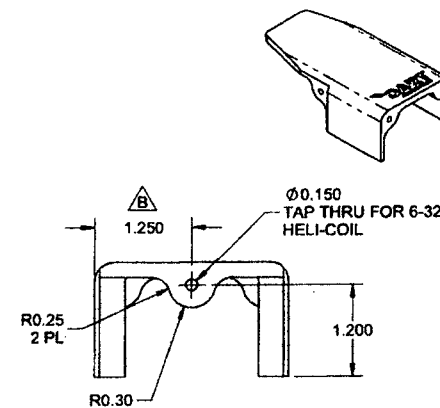
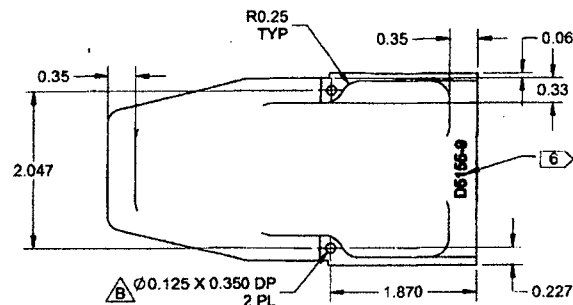
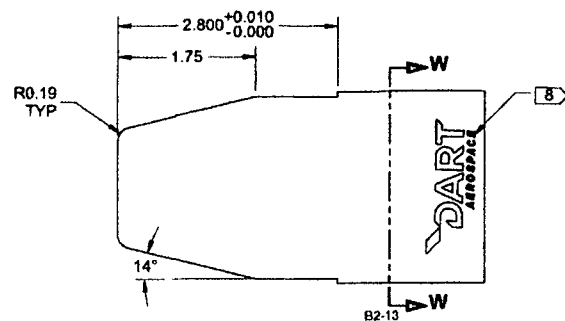
17.4393

5.4393

12

Loc Code

0.4125 ft



NOTES:

- 1) MATERIAL: 6061-T6/T651/T6511/T62 ALUMINUM BAR
PER QQ-A-225/8 OR AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)
OR QQ-A-200/8 OR AMS-QQ-A-200/8 (OR AMS 4160)
OR ASTM B211 OR ASTM B221
REF DART SPEC M6061T6B
- 2) FINISH: ANODIZE BLACK PER MIL-A-8625F TYPE I OR IB OR IC OR II
OR IIB CLASS 2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.3 IN THIS AREA TO MAX DEPTH
OF 0.010 WITH A MIN. TOOL RAD OF R0.010
- 7) WEIGHT: 0.31 lbs
- 8) ENGRAVE "DART" LOGO AS SHOWN 0.003-0.005 DP
- 9) UNDIMENSIONED FEATURES DEFINED BY D5155-9.SLDPRT

D5155-9 CO-PILOT COLLECTIVE HEAD (205)

RELEASED
4.8.2015 JUL 02

DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	VS		
CHECKED	RF	DRAWING NO. D5155	REV. B
MFG. APPR.	JFS	SHEET 13 OF 14	
APPROVED	HS	SCALE	
DE APPR.	DS	CO-PILOT COLLECTIVE HEAD	
DATE	15.05.21	NTS	

COPYRIGHT © 2015 BY DART AEROSPACE LTD
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE SUPPLIER'S CONVEYANCE THAT IT IS
NOT TO BE USED FOR ANY PURPOSE OR COPIED FOR COMMERCIAL PURPOSES TO ANY OTHER PERSONS WITHOUT
THE WRITTEN PERMISSION FROM DART AEROSPACE LTD

DART AEROSPACE LTD		Work Order:	127147
Description: CO-PILOT COLLECTIVE HEAD (205)		Part Number:	D5155-9
Inspection Dwg: D5155 Rev: B		Page 1 of 1	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.800	+0.010 / -0.000	2.800	✓		H-6	31006
14°	+/- 1/2°	14°	✓		Angle M.	CNC-17
2.047	+/- .005	2.045	✓		Vern	GA-13
0.35	+/- .030	0.351	✓		"	"
R0.25	+/- .030	R0.250	✓		R-6	ref.
0.35	+/- .030	0.345	✓		Vern	GA-13
0.06	+/- .030	0.063	✓		D-6	GA-08
0.33	+/- .030	0.328	✓		Vern	GA-13
0.227	+/- .010	0.227	✓		H-6	31006
1.870	+/- .010	1.865	✓		"	"
φ0.125 X .350	+0.004 / -0.001 / +/- .010	φ0.127 X .352	✓		Vern	GA-13
R0.25	+/- .030	R0.250	✓		R-6	ref.
1.250	+/- .010	1.249	✓		H-6	31006
φ0.150	+0.005 / -0.001	φ0.154	✓		Vern	GA-13
1.200	+/- .010	1.202	✓		H-6	31006
0.20	+/- .030	0.201	✓		Mic	118-120
4.700	+/- .010	4.697	✓		Vern	GA-13
1.100	+/- .010	1.100	✓		H-6	31006
φ0.150	+0.005 / -0.001	φ0.154	✓		Vern	GA-13
2.70	+/- .030	2.701	✓		H-6	31006
2.500	+/- .010	2.502	✓		"	"
2.20	+/- .030	2.201	✓		"	"
2.500	+/- .010	2.498	✓		Vern	GA-13
1.200	+/- .010	1.202	✓		H-6	31006
1.500	+/- .010	1.505	✓		Vern	GA-13
0.300	+/- .010	0.300	✓		H-6	31006
1.900	+/- .005	1.900	✓		"	"
R0.25	+/- .030	R0.250	✓		R-6	ref.
φ0.150	+0.005 / -0.001	φ0.154	✓		Vern	GA-13
R0.03	+/- .030	R0.032	✓		R-6	ref.
0.100	+/- .010	0.099	✓		Mic	GA-03

Measured by: J.A.	DAS 08	Checked by: 44	QC Inspector:
Date: 15/04/22	9-89	Date: 15/09/22	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
B	14.07.31	New Issue	KJ	



Part Number: D5155-9	Rev: B	- Page 1 -
Description: CO-PILOT COLLECTIVE	Inspection Dwg: D5155	Work Order: 127147

Element name	Nominal	UpperTol	LowerTol	Actual	Deviation	TolBar
1	0.19000	0.03000	-0.03000	0.18910	-0.00090	*****
2	2.80000	0.01000	0.00000	2.80213	0.00213	***
3	14.00000	0.50000	-0.50000	14.07556	0.07556	*****
4	2.04700	0.00500	-0.00500	2.04458	-0.00242	***
5	0.35000	0.03000	-0.03000	0.35280	0.00280	*****
6	0.25000	0.03000	-0.03000	0.25106	0.00106	*****
7	0.35000	0.03000	-0.03000	0.34592	-0.00408	****
8	0.06000	0.03000	-0.03000	0.06345	0.00345	*****
9	0.33000	0.03000	-0.03000	0.32558	-0.00442	***
10	0.22700	0.01000	-0.01000	0.22688	-0.00012	*****
11	1.87000	0.01000	-0.01000	1.86539	-0.00461	**
12	0.12500	0.00500	-0.00100	0.12663	0.00163	****
13	0.25000	0.03000	-0.03000	0.25216	0.00216	*****
14	1.25000	0.01000	-0.01000	1.25057	0.00057	*****
15	1.20000	0.01000	-0.01000	1.20519	0.00519	*****
16	0.30000	0.03000	-0.03000	0.30026	0.00026	*****
17	0.10000	0.01000	-0.01000	0.09918	-0.00082	****
18	0.30000	0.01000	-0.01000	0.30082	0.00082	*****
19	1.90000	0.01000	-0.01000	1.90051	0.00051	*****
20	0.25000	0.03000	-0.03000	0.25244	0.00244	*****
21	2.50000	0.01000	-0.01000	2.49727	-0.00273	**
22	0.30000	0.03000	-0.03000	0.30117	0.00117	*****
23	0.25000	0.03000	-0.03000	0.25163	0.00163	*****
24	1.20000	0.01000	-0.01000	1.20250	0.00250	*****
25	1.50000	0.01000	-0.01000	1.50444	0.00444	*****
26	0.20000	0.01000	-0.01000	0.20144	0.00144	*****
27	4.70000	0.01000	-0.01000	4.69718	-0.00282	**
28	1.10000	0.01000	-0.01000	1.10258	0.00258	*****
29	2.70000	0.03000	-0.03000	2.69695	-0.00305	****

Measured by: Mathieu Lamarche	Audited by: <i>FK</i>	Preliminary Approval:
Date: 2015-10-6	Date: 15/10/06	Date:



Part Number: D5155-9	Rev: B	- Page 2 -
Description: CO-PILOT COLLECTIVE	Inspection Dwg: D5155	Work Order: 127147

Element name	Nominal	UpperTol	LowerTol	Actual	Deviation	TolBar
30	2.50000	0.01000	-0.01000	2.50062	0.00061	*****_____
31	0.30000	0.03000	-0.03000	0.30148	0.00148	*****_____
32	0.25000	0.03000	-0.03000	0.25061	0.00061	*****_____

Measured by: Mathieu Lamarche	Audited by: <i>FX</i>	Preliminary Approval:
Date: 2015-10-6	Date: <i>15/10/06</i>	Date:



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 63965

Date: 22-Oct-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description		
ea	LOWER CUTTER HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME-MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLY BY CUSTOMER Job: 20150774	PO: PO30121	Line:
10 ea	Part: D4842-3 LOWER CUTTER HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLY BY CUSTOMER Job: 20150775	PO: PO30121	Rev: B Line:
5 ea	Part: D4842-4 LOWER CUTTER HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 PRIME MIL-P-23377J TYPE I CLASS N PAINT IS SUPPLY BY CUSTOMER Job: 20150776	PO: PO30121	Rev: B Line:
1 ea	Part: D5155-9 CO-PILOT HEAD BLACK ANODIZE MIL-A-8625 TYPE II CLASS 2 Job: 20150777	PO: PO30121	Rev: B Line:



A.T.G. Industries Inc.
731, rue Industrielle Rd.
PLATING DEPARTMENT
Rockland, On K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 63965

Date: 22-Oct-15

To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ship To

DART AEROSPACE LTD
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms	Ship Via				
<table border="1"><thead><tr><th>Quantity</th><th>Description</th></tr></thead><tbody><tr><td></td><td> Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE : <u>22/10/15</u> CERTIFIED SIGNATURE : <u></u> RECEIVER SIGNATURE : _____ </td></tr></tbody></table>		Quantity	Description		Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE : <u>22/10/15</u> CERTIFIED SIGNATURE : <u></u> RECEIVER SIGNATURE : _____
Quantity	Description				
	Certificate of Conformance A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order. ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY DATE : <u>22/10/15</u> CERTIFIED SIGNATURE : <u></u> RECEIVER SIGNATURE : _____				